

application matrix

| Application | Thickness (mm) | | |
|-----------------------------|----------------|----|-----|
| | 50 | 75 | 100 |
| Prefab Structures | ✓ | ✓ | ✓ |
| Drywall Partitions | ✓ | ✓ | ✓ |
| Mezzanine Flooring | ✓ | ✓ | ✓ |
| Compound Wall | | ✓ | ✓ |
| 1 hr. Fire Rated Partitions | ✓ | | |
| 2 hr. Fire Rated Partitions | | ✓ | |
| 3 hr. Fire Rated Partitions | | | ✓ |
| Residential Partitions | ✓ | ✓ | ✓ |

validation of the product qualities by external agencies:

Advanced Bridge Engineering Systems (ABES) of Australia assessed the properties of **Vpanel** produced by Visaka Industries Limited, India. Based on the strength and robustness properties of **Vpanel**, ABES certified that **Vpanel** meets the objectives and complies as a material under the building code of Australia.

Vpanel in action

Project

Rajiv Gandhi Memorial Hospital, Kochi, India.

Task

2800 sq ft Wall Construction

Manpower required

Five

Time taken

Four days

Speed of Construction

4x faster than brick plaster work

Visaka Industries Ltd. was promoted by Dr. G. Vivekanand in 1981 to manufacture Fibre Cement Roofing Sheets.

Today, the company has manufacturing plants across the country with a turnover of ₹925 crores, making it the second largest cement sheet manufacturer in India. The non-asbestos cement board & panel division was established in the year 2008. The company boasts of a massive portfolio with 8 Fibre Cement Roofing Sheets plants having manufacturing capacities of 8,30,000 MT per annum, 2 Vboard plants having manufacturing capacities of 1,20,000 MT per annum, a Vpanel plant having manufacturing capacity of 3,00,000 Sq.m., and a Textile Yarn plant. With a focused vision of revolutionizing modern construction as we know it, the company manufactures the highest quality products that are exported around the world.



visaka industries limited

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Domestic email : domestic.vboard@visaka.in
Web: www.constructionnext.in

Factory 1

Gajalapuram Village,
Nalgonda District,
Andhra Pradesh, India.

Factory 2

Visaka Industries Limited
Gate no. 262 to 269
Delwadi Village, Daund taluq,
Pune, Maharashtra, India.

scan this image to
get in touch with us



contact@pad.net.in | 03/14

From the house of



not wood,
much good!

Vpanel

Vpanel

salient features



manufacturing & aesthetics

Vpanel is manufactured by Visaka industries limited with technical know-how from M/s Dantotech, Australia. These panels are manufactured at an asbestos free manufacturing unit located at Miryalguda, Andhra Pradesh, India.

Vpanel is manufactured using a unique technology by which the asbestos free fibre cement facing sheets and the cementious core are bonded to form a composite panel with an excellent bonding strength. The unique semi-circular tongue and groove makes installation of Vpanel very easy.

Vpanel is considered the longest, lightest and strongest of all the dry wall elements available.

Vpanel is an energy efficient building product because of its excellent thermal properties.

Vpanel is evaluated as per the testing methods prescribed in ASTM, BS, & BIS.

fire & toxicity tests

Vpanel is tested for their fire and toxicity ratings. Primarily, Vpanel is non-combustible and offers a fire rating of 60 minutes for 50mm thick panel wall system and 120 minutes for 75mm thick panel wall systems which are quite enough durations for general purpose dwellings. Combustion of expanded polystyrene beads in the panel core does not pose toxicity problems. CSIRO, Australia - a division of Building Research, states that "for foamed polystyrene the potential toxic hazard appears to be no greater than that of wood".

instant wall construction

Vpanel can be used as a cost effective and time saving solution for construction of dry walls. Vpanel wall has all the advantages of a masonry wall with added qualities preferred for construction. Vpanel is a user friendly product for installation and proves to be a better substitute for conventional walls and any other dry wall solutions.



- ✔ Fire rating 50mm-60min
- ✔ Fire rating 75mm-120min
- ✔ Fire rating 100 mm-180min
- ✔ Asbestos free
- ✔ Light weight
- ✔ Time saving
- ✔ Space saving
- ✔ Easy workability
- ✔ Easy to dismantle and relocate
- ✔ Thermal insulation
- ✔ Sound insulation
- ✔ Water resistant
- ✔ Termite resistant
- ✔ High strength
- ✔ Eco- Friendly

applications

Vpanel's multiple uses makes it a preferred product for various applications :



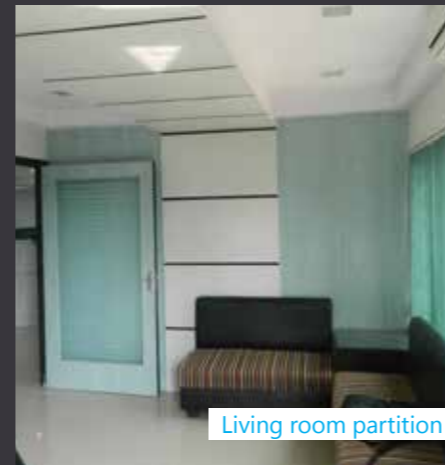
Construction site camps



Resort under construction

internal wall partitions

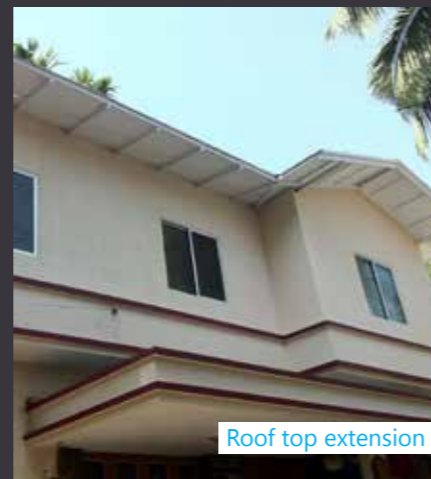
With properties like acoustic insulation, thermal resistance and fire rating, Vpanel becomes the smart choice for internal wall partitions for commercial and residential buildings. The slim Vpanel partition results in higher carpet area for construction in shopping malls, commercial complexes, offices etc.



Living room partition



Office partition



Roof top extension



Villas

pre-fab structures

Vpanel proves to be a perfect choice for camps, site offices, godown, villas, resorts and infrastructure site facilities. As per choice, the construction can be opted for dismantling and relocating at another site instead of a permanent construction.

external walls

The basic properties of insulation, energy efficiency and impact resistance make Vpanel a perfect solution for external walls. As the product is available in two thicknesses of 50mm and 75mm, the external walls may be made with 75mm thick panels to gain the intrinsic qualities of the product.

properties of Vpanel 50mm, 75mm & 100mm thickness

| S. No. Properties | Units | Specification References/Standards | 50mm | 75mm |
|--|---------------------|---|---|---|
| A Physical Properties | | | | |
| I Nominal Weight Per Sq. Mtr | Kg/M ² | Weight Physical | 34 | 46 |
| II Axial Load | | | | |
| Samples Size 2.5 Meter 0.6 Meters | KN/M | ASTM E 72 | 54 | 90 |
| Samples Size 1.5 Meter 0.3 Meters | KN/M | ASTM E 72 | 65 | 100 |
| | | | Safety Factor 2.0 | Safety Factor 2.0 |
| III Multi Point Load | | | | |
| 2.9 Meter Span | Kg/M ² | ASTM E 72 | 125 | 150 |
| 2.4 Meter Span | Kg/M ² | ASTM E 72 | 200 | 250 |
| 1.5 Meter Span | Kg/M ² | ASTM E 72 | 450 | 500 |
| IV Uniform Distributed Load (Bag Test) | KNm/m | ASTM E 72 | 2.5 | 3.75 |
| V Tensile Strength Parallel to Surface | N/MM ² | IS 2380 1977 | 1 | 0.9 |
| VI * Core Bonding Strength | N/MM ² | IS 2380 1977 | 0.3 | 0.35 |
| VII Modulus of Rupture | Kg/cm ² | IS 2380 1977 | 42 | 31 |
| B Thermal Properties | | | | |
| I Thermal Resistance | M ² K/W | IS:3346 1980 | 0.3 | 0.55 |
| II Overall Thermal Transmittance | W/ M ² K | IS:3346 1980 | 1.8 | 1.5126 |
| C Acoustic Properties | | | | |
| I Sound Transmission Class | dB | IS:9901 (Part II)-1981 Din:52210 (Part IV)-1984 ISO:140 (Part III)-1995 | 33 | 36 |
| D Fire Related Properties | | | | |
| I Fire Rating | Minutes | BS 476:Part 20&22 | 60 | 120 |
| II Surface Spread Flame | Class | BS 476 : Part 7 | Class - I | Class - I |
| III Fire Propagation Index | Index | BS 476 : Part 6 | 3.4 | 3.3 |
| IV Ignitability | Performance | BS 476 : Part 5 | Class - P | Class - P |
| V Combustibility | Performance | BS 476 : Part 4 | Not Combustible | Not Combustible |
| E Resistance to Air & Water | | | | |
| | | BS 4315.2 1970 | No dampness, No leakage, Increase in weight - 4.5% (max) | No dampness, No leakage, Increase in weight - 4.5% (max) |

* No Debonding at the Interface between facing sheet and core material

Vpanel of standard width of 0.6 meters are available in lengths of 2.4, 2.7, 3.0 & 3.3 meters and in thicknesses of 50mm, 75mm & 100mm